U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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MOLYBDENUM IN MARCH 1997

Domestic production of molybdenum in concentrate increased 3% in March 1997 compared with that of the previous month and was 11% more than in March 1996, according to the U.S. Geological Survey. Producer molybdenum stocks in concentrate, oxide, and other product forms were 8,250 metric tons at the beginning of 1997 and 8,690 metric tons at the end of March 1997.

Included in this Mineral Industry Surveys (MIS) are U.S. production, shipments, and stocks of molybdenum concentrates and materials, plus U.S. consumption by end use of molybdenum in March 1997. Also included are trade data for February 1997. During March 1997, Platt's Metals Week U.S.

monthly average price for molybdenum concentrate was \$4.960 per kilogram (\$2.250 per pound).

The average price for dealer molybdenum oxide was \$9.905 per kilogram (\$4.493 per pound) and that for dealer ferromolybdenum was \$12.070 per kilogram (\$5.475 per pound).

For the week ending June 6, 1997, Metals Week U.S. average price for molybdenum concentrate was \$4.960 per kilogram (\$2.250 per pound). The average price for dealer molybdenum oxide was \$9.998 per kilogram (\$4.525 per pound) and that for ferromolybdenum was \$11.904 per kilogram (\$5.400 per pound).

TABLE 1 U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS 1/

(Metric tons, contained molybdenum)

			1997		
Item	1996 p/	February	March	Year to date	
Production	56,000	5,030 r/	5,160	15,600	
Shipments: 2/					
Domestic	16,100	1,130	1,120	3,580	
Export	19,700	1,630 r/	1,640	5,130	

p/ Preliminary. r/ Revised.

TABLE 2 U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS IN MARCH 1997

(Kilograms, contained molybdenum)

	Molybdic	Ferro molyb-	Ammonium and sodium	Molyb- denum		
End use	oxides	denum 2/	molybdate	scrap	Other	Total
Steel:	_					
Carbon	39,600	W			W	39,600
Stainless and heat-resisting	231,000	10,800				242,000
Full alloy	206,000	178,000			W	384,000
Electrical	W	W			W	W
High-strength low-alloy	32,800	9,890				42,700
Tool	78,800	4,760			W	83,500
Cast irons (gray, malleable, and ductile iron)	3,200	56,200			W	59,400
Superalloys	W	W		59,600	38,300	97,900
Alloys: (other than steels, cast irons, and superalloys)	_					
Welding materials (structural and hard-facing)					W	W
Other alloys 3/					W	W
Mill products made from metal powder 4/						
Cemented carbides and related products 5/		221				221
Chemical and cereamic uses:	_					
Pigments			1,040			1,040
Catalysts	77,300		W		W	77,300
Other 6/	W				W	W
Miscellaneous uses:						
Lubricants					10,200	10,200
Other						
Unspecified uses:	74,800	44,500	78,100		183,000	381,000
Total	744,000	304,000	79,100	59,600	232,000	1,420,000
Stocks, March 31,1997	520,000	187,000	9,480	44,100	809,000	1,570,000

W Withheld to avoid disclosing company proprietary data; included with "Unspecified uses."

^{1/} Data are rounded to three significant digits.

^{2/} Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} Includes calcium molybdate.

^{3/} Includes magnetic and nonferrous alloys.

^{4/} Includes ingot, wire, rod, and sheet.

^{5/} Includes construction, mining, oil and gas, and metal working machinery.

^{6/} Includes ground coat, glass, silicone, electroplating, $\,$ and drier in paint or related uses.

 ${\bf TABLE~3} \\ {\bf U.S.~REPORTED~PRODUCTION~AND~SHIPMENTS~OF~MOLYBDENUM~PRODUCTS~1/} \\$

(Metric tons, contained molybdenum)

		1997			
Product	1996 p/	February r/	March	Year to date	
Gross production	46,300	4,720	4,070	13,600	
Internal consumption 2/	23,900	2,070	1,890	6,210	
Gross shipments	24,100	2,440	1,930	7,020	

p/ Preliminary. r/ Revised.

TABLE 4 U. S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES (INCLUDING ROASTED CONCENTRATE), BY COUNTRY 1/

(Kilograms, contained molybdenum)

		1997		
Country	1996	January	February	Year to date
Australia	60,900	9,090		9,090
Belgium	12,400,000	1,150,000 r/	1,360,000	2,510,000
Brazil	20,400		339	339
Canada	268,000	34,000 r/		34,000
Chile	6,990,000	737,000 r/	633,000	1,370,000
China	1,290,000	140,000 r/		140,000
France	5,620			
Germany	505,000		59,600	59,600
India	58,600			
Italy	384,000	19,900	58,700	78,600
Japan	5,140,000	559,000 r/	549,000	1,110,000
Korea, Republic of	10,200			
Mexico	5,500,000	519,000 r/	197,000	716,000
Netherlands	5,890,000	1,000,000 r/	1,590,000	2,590,000
Spain	19,900	18,400	10,500	28,900
Sweden	473,000	80,000 r/	19,900	99,900
United Kingdom	6,010,000	1,160,000 r/	235,000	1,390,000
Other		9,030	508	9,540
Total	45,000,000	5,440,000 r/	4,710,000	10,100,000

r/ Revised.

Source: Bureau of the Census.

^{1/} Data are rounded to three significant digits.

 $^{2/\} Includes\ molybdic\ oxides,\ metal\ powder,\ ammonium\ molybdate,\ sodium\ molybdate,\ and\ other.$

^{1/} Data are rounded to three significant digits; may not add to totals shown.

 ${\bf TABLE~5}$ U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY 1/

(Kilograms, contained molybdenum)

		1997			
Country	1996	January	February	Year to date	
Canada	252,000	34,000	36,100	70,100	
China		130		130	
Japan	117,000	2,650		2,650	
Korea, Republic of	1,910				
Malaysia	37,200				
Mexico	117,000	1,980	15,800	17,800	
Singapore	53,900				
Spain	1,160				
Taiwan			905	905	
Venezuela	1,090				
Total	581,000	38,800	52,800	91,600	

^{1/} Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

 ${\it TABLE~6} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~MOLYBDENUM~PRODUCTS~1/} \\$

(Kilograms unless otherwise specified)

	1996			1997			
	January-December			January-February			
	Gross	Contained	Value (c.i.f.)	Gross	Contained	Value (c.i.f.)	
Material	weight	molybdenum	(thousands)	weight	molybdenum	(thousands)	
Ore and concentrates roasted	8,090,000	5,460,000	\$41,300,000	1,380,000	861,000	\$8,290,000	
Ore and concentrates other	35,600	21,100	173,000	20,000	12,000	106,000	
Molybdenum chemicals:							
Oxides and hydroxides	1,160,000		8,850,000	349,000		2,590,000	
Molybdates of ammonium	665,000	368,000	5,360,000	140,000	69,900	1,070,000	
Molybdates (all others)	82,500	36,400	506,000	57,000	33,900	350,000	
Molybdenum orange	1,840,000		5,710,000	258,000		860,000	
Mixtures of inorganic							
compounds							
Ferromolybdenum	7,870,000	4,960,000	55,100,000	1,150,000	728,000	7,720,000	
Molybdenum powders	125,000	110,000	3,470,000	13,700	11,200	474,000	
Molybdenum unwrought	91,100	84,400	2,380,000	55,200	53,000	765,000	
Molybdenum waste and scrap	693,000	640,000	9,720,000	41,600	40,500	445,000	
Molybdenum wrought							
Molybdenum wire	1,990		320,000	286		47,500	
Molybdenum other	3,870		1,060,000	592		138,000	
Total	20,700,000	11,700,000	134,000,000	3,470,000	1,810,000	22,900,000	

^{1/} Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.